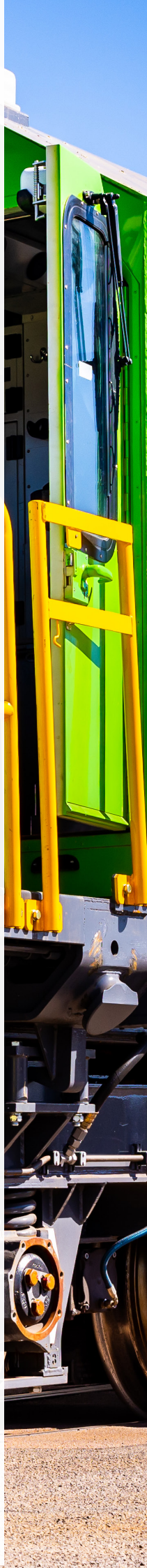
TRANSNET

FREIGHT RAIL REPORT **2022**

Contents



Business overview

Freight Rail provides rail network infrastructure and operates rail services over major rail corridors to transport commodities for export, regional and domestic markets. It operates world-class heavy haul coal and iron ore export lines and has extended this capability on the iron ore line to export manganese. The division also transports a broad range of general freight commodities including mining, agricultural, manufactured goods, bulk liquids, containerised freight and automotive.

The Freight Rail network and rail services provide strategic links between ports, freight terminals and production hubs and connectivity with the railways of the Southern African Development Community (SADC) to support regional integration. Infrastructure connectivity, coupled with close co-operation between Transnet Operating Divisions and collaboration with key customers and industry role players enable the delivery of freight volumes across industry supply chains.

There was sufficient validated demand in the market for rail services across key commodities however the benefits of sky-high commodity prices could not fully be maximised as multiple factors negatively impacted operations. Rampant theft and vandalism, the unrest in July 2021 which largely impacted Gauteng and KwaZulu Natal (large business hubs), the cyber-attack which adversely impacted key operating Transnet systems as well as internal operational challenges all compromised revenue earnings potential for the year.

The exponential rise in security incidents affected both network infrastructure condition and the availability of rolling stock assets. The reliability of the new locomotive fleet was also compromised by the unavailability of maintenance spares and components, while the older fleet is unreliable due to underinvestment and obsolescence. This further reduced available rail capacity to meet customer demand.

Notwithstanding the constraints, no effort was spared to best utilise the rail network and rolling stock assets to mitigate the macro and socio-economic risks facing the country and the business. The difficult trading conditions in 2021/22 negatively impacted Freight Rail's volume performance as evidenced by a decline in operational and financial results relative to the previous year.

For the financial year ending 31 March 2022, Freight Rail's total volume performance was 172,7 mt, 5,0% lower when compared to the prior year (2021: 181,1 mt).

The following major setbacks were experienced in the rail sector in 2021/22:

- An exponential increase in cable theft incidents over the last five years has escalated tonnage and revenue losses and increased repair costs. Over 1 500 km of cable was stolen (a 1 096% increase in the length of cable stolen in the past five years) with a net financial impact of R4,1 billion.
- In July 2021, Transnet declared a force majeure on the Container corridor rail line that connects Gauteng and KwaZulu-Natal, due to riots and social unrest in the two provinces. Due to the riots and social unrest, the South African economy became severely constrained with disruption of key services, shortages of food, fuel and essential medical supplies. This disaster halted the country's lucrative mineral and fresh produce exports that were a salve to ailing economic growth. Car makers and miners were able to delay shipments indefinitely, however exporters of fruit and vegetables had a much smaller time window and lost millions of Rands each day their products lay idle at the ports or rotted on the vine.
- Two major ports, Richards Bay and Durban, important logistics hubs for the country and South Africa's multi-purpose oil pipeline which originates in eThekwini were impacted by fire and other unprecedented incidents. This had a ripple effect on railway services as port offloading and loading was halted.

- The cyber-attack on Transnet's IT systems resulted in a total shutdown of all Transnet systems for a period of 5 days, the impact of which was felt countrywide as it hampered Transnet's ability to resource and service customers' needs adequately. Transnet was forced to adopt manual operations processes during this time which had devastating impact on productivity and system capacity. A force majeure was declared due to this unanticipated event.
- The Ore corridor was invaded by a massive swarm of locusts. The locust swarm covered more than 100 kilometres of the line from loop 13 to loop 15. Trains staged in the affected section could not move due to increased incidents of locked axles caused by wheel slippages. Freight Rail was forced to suspend mainline operations completely, for a period of two and a half days to deal with the crisis. Transnet collaborated with the Department of Agriculture (DOA) to mitigate the impact of the outbreak.
- From December 2021 to February 2022, excessive rainfall in several areas of the Eastern and Northern Cape caused washaways and damage to rail infrastructure which caused several stoppages and affected Manganese exports through Gqeberha. Several speed restrictions were imposed to ensure that the risk of rail incidents was minimised while permanent repairs were done.

Highlights

Despite the extraordinary external dynamics, Freight Rail achieved the following major milestones:

- The Ore corridor set a new weekly record of 1 356 679 tons.
- A new weekly record of 356 648 tons of manganese was railed against a target of 337 786 tons. This was the best weekly performance ever for the manganese portfolio, exceeding the previous record of 345 466 tons in week 29 of the previous financial year.
- The manganese to Saldanha volumes increased by 14% from 3 954 394 the previous year to 4 509 034 in 2021/22. The growth was largely as a result of efficiency improvements.
- There was an increase in the wagon fleet allocation for the transportation of reefer products (e.g., fruits by >150%). The increase in capacity went from 4 train sets of 40 wagons each, to 10 train sets of 50 wagons each. A train set includes specialised reefer wagons, coaches for technicians on board the train and power for maintaining temperature of cargo. The reefer export volumes increased from 4 978 TEU to 6 087 TEU in 2021/22.
- Export grain from Bethlehem (Free State) to Durban increased from 235 826 tons in 2020/21 to 499 224 tons in 2021/22. The extension of the export grain season contributed to the increased volumes railed.
- Transnet values collaboration with key stakeholders and has therefore strengthened its relationship with communities along the rail lines through initiatives such as employment creation and providing contracts within the corridors. This initiative included collaborating with various security agencies, and government bodies to reduce incidents. Transnet has also increased consultations with municipalities regarding growing encroachment of settlements on rail reserves, especially along the Container corridor and Gauteng.
- The upgrade and re-opening of the Cookhouse Blaney branchline which had been closed for over 5 years. During the course of this project, TFR provided short-term employment opportunities for over a hundred citizens across local municipalities. The reintroduction of the line reduced the current train travel time from East London to Gqeberha by almost half. Ordinarily the train trip between these two cities would have taken 36 hours. With the reopening of this branchline we have been able to reduce this to 18 hours.
- Freight Rail has commenced the process to enable third party access to the freight rail network. In addition, Freight Rail has released a request for proposals to operators for the resuscitation of four branchlines in the 2022 financial year.
- The Central corridor re-opened the goods line in Pretoria North, and the LUD line in Pretoria East which increased the service capacity to the automotive industry by 25%.

Strategic context

The future growth and sustainability of South Africa's rail industry depends on collaboration between Transnet and various stakeholders (including customers) to improve overall rail system effectiveness, particularly in the areas of innovation, digital systems, technology, logistics capability, investment funding and new business models.

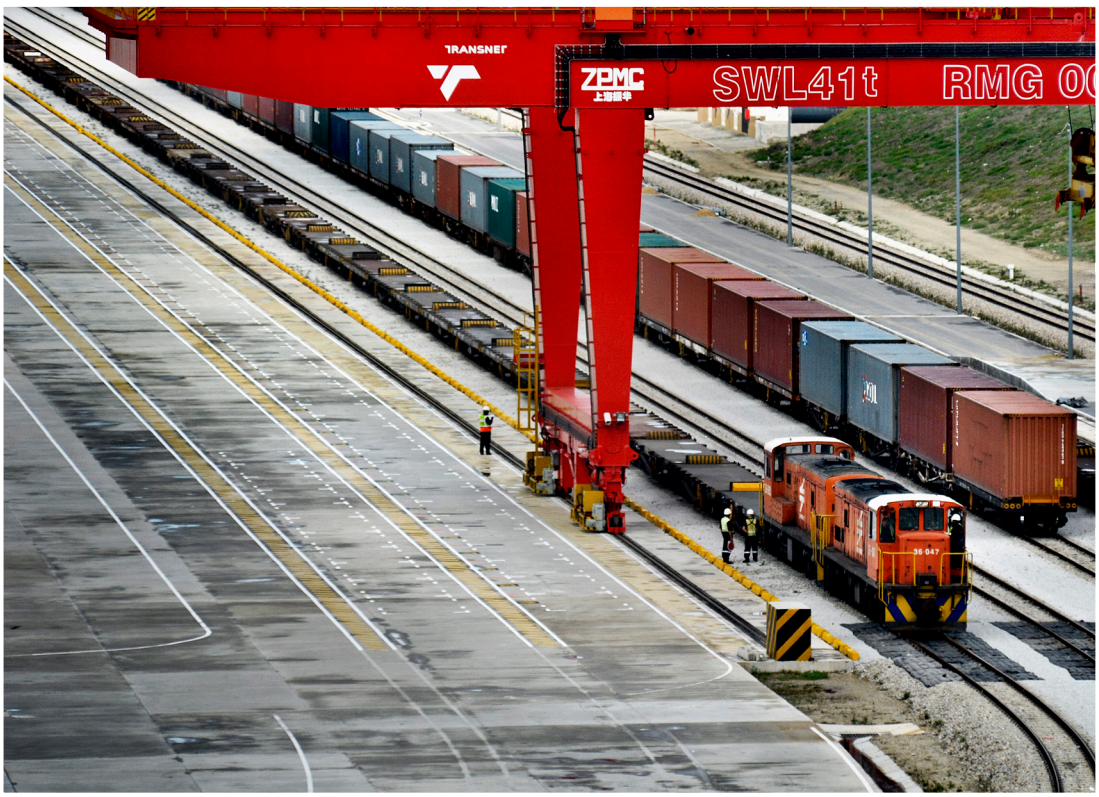
Freight Rail aims to continue with the implementation of rail reform initiatives including the segment strategies to improve delivery to our customers and ensure financial sustainability.

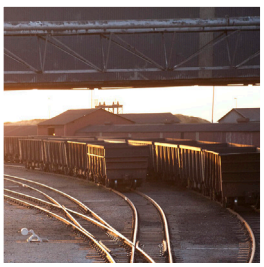
Focus continues to be on delivering business performance targets through the implementation of Transnet strategic focus areas translated by Freight Rail as 'Must Win Battles'. The 'Must Win Battles' is the blueprint for the recovery journey of the business.

The key strategic priority for business performance improvement in 2022 was to improve the overall condition of the rail network infrastructure.

Freight Rail adopted a strategic direction aligned to the overall Transnet strategy to address these challenges and reposition the business for growth and rail sector competitiveness. This journey is summarised by the priorities in the table below:

Fix	Optimise	Grow
• Network condition and security • Corridor operating models • Market development, General freight road-to-rail volume and market share growth especially on the Container Corridor (Container Cor) and within the intermodal segment • Asset efficiency and service reliability • Procurement effectiveness and robustness • Customer service delivery • Improve performance culture and employee engagement • Passenger Rail Agency of South Africa interoperability, collaboration and interfaces • Commercial separation of the rail network and rail operations	• Densify strategic corridors • Refine organisational design -business processes, productivity and cost compression • Sustain and grow bulk mining to protect revenue and market share • Develop and penetrate new markets in containers, automotive, agricultural products, fast-moving consumer goods and manufactured commodities to grow revenue • Road-to-rail migration • Capital prioritisation – efficiency and volume growth • Implement digital technologies • Employee value proposition	• Private operator access • PSPs in branch lines, wagons and terminals to support new market development • Expand to regional market and partner with SADC railways and private sector • Introduce new services • Streamline shared services • Future critical skills to meet market demands

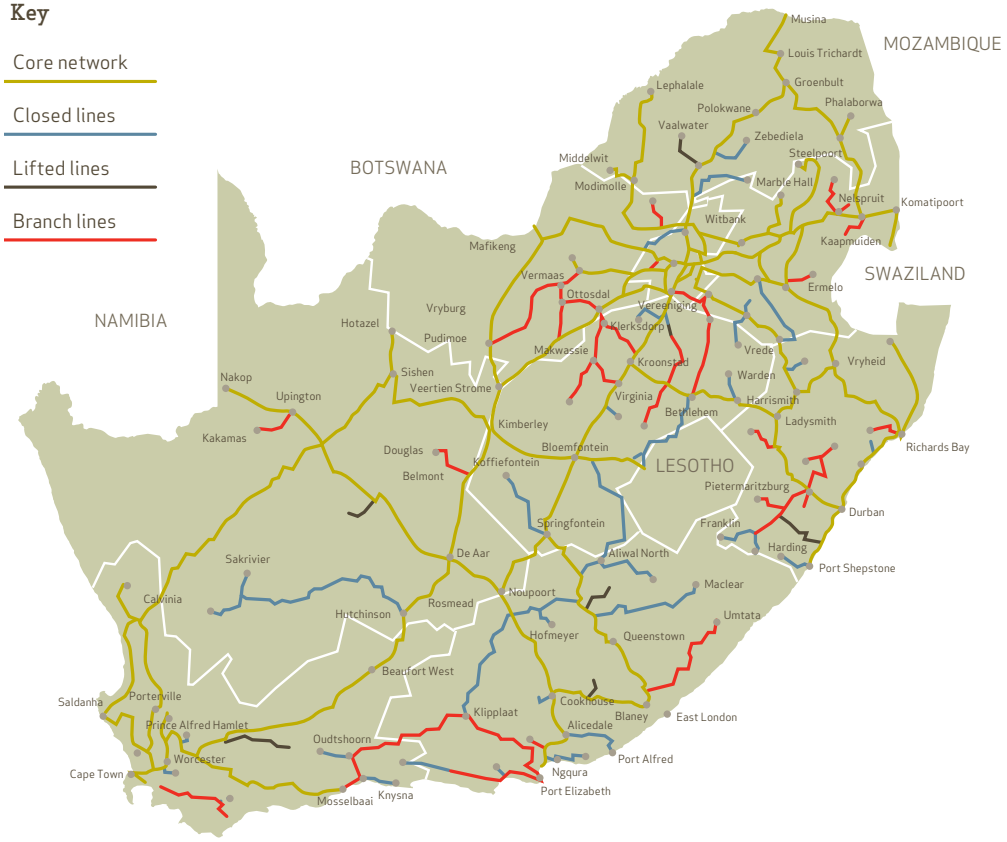




Where we operate and Transnet Freight Rail's Corridors

Freight Rail maintains and manages a complex rail network which extends across South Africa and comprises approximately 31 000-track km or (20 911 route km) over which commodities are hauled by trains (locomotives and wagons). The diverse rail network comprises ~1 500 km heavy haul lines. The network also includes 3 928 km of branch lines that serve as feeders to main lines.

Figure 1: Freight Rail network



Rail infrastructure assets

- ±31 000 km of track
- 20 911 route km
- Core network – 12 801 route km

- **Bridges/structures**
  - Bridges – 2 696
  - Tunnels – 198

- **Network traction**
  - 50kV AC – 861 route km
  - 25kV AC – 2 516 route km
  - 3kV DC – 4 621 route km
  - Diesel – 12 955 route km

- **Traction substations**
  - 3kV DC substations – 346
  - 25kV AC substations – 99
  - 50kV AC feeder stations – 7

- **Train authorisation systems**
  - Signalling basic stations – 2 146

- **Axle loading**
  - Main lines at 20t/axle
  - Ore line at 30t/axle
  - Coal line at 26t/axle

Transnet Freight Rail's Corridor Model

Freight Rail implemented the Corridor model to respond to the rapidly changing business, market and policy environments, and to drive improved business performance and competitiveness.

- **North corridor (NorthCor)**

  The North corridor comprises a diverse mix of railway systems, operations configurations, typographies, and capacities, which together, service domestic and export bulk and breakbulk markets. The North corridor transports 40% of total Transnet Freight Rail's total volumes. The most prominent railway system within the North corridor is the 26 ton per axle heavy-haul line between Ermelo and Richards Bay, which predominantly services the Mpumalanga coalfields and the Waterberg coalfields.
  The dominant direction of freight flows on the North corridor is from Lephalale through Pyramid South and Ermelo to the Port of Richards Bay. Export coal, domestic coal, Eskom coal, chrome, ferrochrome, bulk chemicals, agricultural products and cement are the main commodities served by the corridor. Chrome and ferrochrome flows originate from the Eastern Limb PGM minerals deposits (including Phokeng, Northam, Rustenburg and Pendoring) and the Western Limb Platinum Group Metals (PGM) mineral deposits (including Steelpoort, Mashishing and Machadodorp) are mainly transported to the Ports of Richards Bay and Maputo for export. Domestic coal originates from Mpumalanga and Lephalale and is transported to various destinations across the country. The corridors main focus is on asset efficiencies as well as creating opportunities for growth of rail capacity for the transportation of mining commodities.

- **Ore Corridor (OreCor)**

  The Ore line is one of the two main heavy haul lines in South Africa. The Ore corridor stretches 861 km from Sishen in the Northern Cape to Saldanha Bay on the Western Cape coast.
  The ore line provides a world-class platform of heavy haul capabilities (30 tons per axle), technologies and efficiencies. The current iron ore export operation is optimised with 348 CR13/14 wagon trains. The corridor has become an international player in providing a diverse range of heavy haul logistics solutions for growing local and international markets and has been accommodating manganese exports since 2014. Main commodities transported on the corridor are iron ore, manganese, cement and lime. For the Ore corridor to support the customer growth demands under fluctuating global commodity prices, it is essential that logistics costs are kept at a minimum. Economies of scale and density are critical to efficiency and effectiveness.

- **North-East Corridor (NorthEastCor)**

  The North-East corridor stretches from the Limpopo River at Beitbridge in the Limpopo province through Komatipoort to Richards Bay on the east coast and from Pyramid/Witbank (Rayton) to Komatipoort. The corridor conveys 14% of Freight Rail's volumes.

  The North-East corridor strategically links the South African rail freight business with that of multiple SADC countries mainly through eSwatini, Zimbabwe, Mozambique, Zambia, and the Democratic Republic of Congo. Commodities are transported via various border posts or gates of entry such as Komatipoort, Golela, Beitbridge, Livingstone and Sakania. The corridor has three prominent linear flows:

  - Phalaborwa to Maputo and Richards Bay, mainly transporting magnetite and rock phosphate;
  - Witbank to Maputo, mainly transporting chrome and coal; and
  - Intermodal (reefers) originating from Tzaneen, Musina and Bela Bela destined for Durban.

  High-yield general freight flows within the corridor include magnetite, chrome, ferrochrome and rock phosphate. Strengths within the corridor are good rail connectivity with sub-Saharan Africa, which enables regional operational integration and collaboration across Operating Divisions that improves service delivery for integrated pit-to-port flows. Focus is being placed on revising the value chain operating model to unlock capacity, implementing operational lever programmes to ensure process adherence, reducing system waste to increase capacity and increasing train lengths for key commodities to optimise slot availability and improve locomotive utilisation.

- **Cape Corridor (CapeCor)**

  The Cape corridor has the largest area footprint in Freight Rail, stretching from Warrenton in the northeast to Cape Town in the south. Corridor lines run from the key mining areas surrounding Hotazel in the Northern Cape connect to the ports of Gqeberha and Ngqura in the southeast, providing the primary export channel for South Africa's manganese exports. Corridor links between mines and the Central corridor also enable the transportation of manganese and iron ore for domestic markets. The corridor also includes various branch lines such as the Bellville-Bitterfontein and De Aar-Upington lines and sections of the lines from Bloemfontein to East London and Gqeberha. The Corridor presents opportunities for the growth in the agricultural sector, particularly refrigerated cargo such as fruit. Other growth opportunities for rail include automotive, cement and lime and grain, maize and wheat. The CapeCor also includes the line linking the port of Cape Town to the Reef and connects with the export ore line and Namibia. Growth opportunities lie in over-border traffic to Namibia and general freight growth in containerised agricultural products and manganese. Less than train load operations require agile operating models and innovative solutions to optimize asset utilisation and to grow the customer base. The Cape corridor continues to focus on stimulating rail activity for its general freight commodities and has made significant progress in attracting private sector investment in its branch line network.

- **Container Corridor (ContainerCor)**

  The Container corridor, previously known as the NatCor, links Durban with the economic hub of Gauteng through an extensive rail network. The ContainerCor extends to Port Shepstone, Kroonstad, Stanger and includes connectivity to branch lines serving the grain and timber sectors. The ContainerCor is a key logistics corridor of South Africa's freight transportation network and is vital in facilitating economic growth for the country. The main components of the corridor consist of the port of Durban, well established road, rail and pipeline links to Gauteng, and inland freight terminals to service the broader Gauteng area and countries to the north of South Africa's borders. Key commodities conveyed on ContainerCor include containers, automotives, grain, fuel, coal and other general freight. The corridor also offers connectivity to various Back of Port facilities around Durban to act as storage buffer to alleviate port congestion.

- **Central Corridor (CentralCor)**
  The Central corridor is geographically positioned in the centre of the Freight Rail network and fulfils an enabling role for cross-network traffic to/from other corridors. It is often referred to as a "hybrid" corridor or rail junction (central hub). Its geographic scope extends from the Pretoria operational area in the north to as far south as Vereeniging towards Warrenton and westwards towards the Botswana border – incorporating operating areas of Lichtenburg and Krugersdorp.

  The enabling network comprises the key junction and interface railway areas of Pretoria, Isando and Sentrarand with PRASA, the passenger rail service. This Central Hub is the pivot or junction for rail traffic moving between the other corridors, that totals between 20 mtpa and 40 mtpa, with high-revenue commodities of chrome (between Rustenburg and Richards Bay, Maputo and Witbank), coal (from Lephalale to Richards Bay, Vanderbijlpark and Newcastle), domestic iron ore flows (from Postmasburg to Bijlkor and Newcastle), manganese (Postmasburg to Richards Bay) and time-sensitive traffic of containers and vehicles (between Isando, Pretoria and Durban).

  Fluidity and increased velocity through the Central Hub are vital to the reduction of cycle times and enabling general freight flows through the area. The Central Hub provides access for customers on the reef to all ports and neighbouring countries (Botswana, Mozambique, Zimbabwe, Zambia and DRC).
  Most of CentralCor's rail demand emanates from the areas of Krugersdorp, Lichtenburg, Vereeniging and bi-directional traffic between Botswana and South Africa. This is known as the volume generating part of CentralCor and includes the branch line network that supports the maize-triangle in the Northwest Province.

Regulatory environment

Freight Rail evaluates applicable legislation on an annual basis to remain relevant in response to the changing regulatory environment. Evolving regulation, policy and Government plans seek to advance the objective of improving network utilisation and promote competition through the introduction of private operator access to the Rail Network as a key element of rail sector reform.

The White Paper on National Rail Policy and Economic Regulation of Transport (ERT) Bill requires the separation of rail infrastructure costs and management activities from those of rail operations and Freight Rail has made significant progress in undertaking an exercise of separating accounting information to reflect greater transparency of ringfenced costs in preparation of third-party access. In the near future the role of the rail infrastructure manager will evolve to include both the maintenance of infrastructure hardware and the management of third-party access, in line with the envisaged bill.

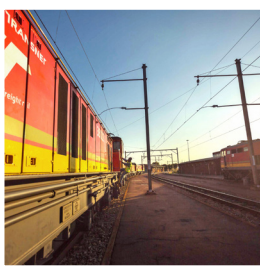
The National Railway Safety Regulator Act, 2002 was reviewed by the Department of Trade and Industry (DoT) and a Draft Railway Safety Bill, B7-2021 was published for public comment.

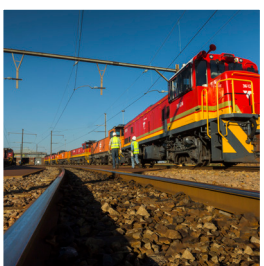
Transnet submitted comments on the draft Railway Safety Bill in October 2021. Freight Rail will submit an application for the renewal of its Safety Permit in the new year.

The Department of Public Works and Infrastructure published the draft National Infrastructure Plan 2050 for public comment. Transnet submitted comments on the National Infrastructure Plan, 2050 during September 2021.

Operational context

Freight Rail's operational and financial performance for the 2021/22 financial year was below expectations owing mainly to major constraints in security and locomotive availability for the export coal line that accounts for 35% of the volumes as well as subdued economic trading conditions. Other factors such as power supply challenges, incidents on the heavy haul lines, community unrest, and the COVID-19 pandemic has also contributed to restrained performance.





Core initiatives

Freight Rail designed "Must Win Battles" to address the prevailing operating environment, to optimise performance and grow the business. Focus was on the implementation of tactical initiatives to support Transnet's strategic focus areas, improve operational efficiency and bring about improvement in customer service. The key "Must Win Battles" initiatives included:

Infrastructure improvement

Network maintenance and renewal was supported by improved procurement processes and by interventions to secure the network against the threats of theft, vandalism and sabotage and to improve safe operational performance.

Funding limitations during the 2021/22 financial year led to a reduction in planned maintenance of the rail network as funds were allocated for the replacement of stolen and vandalised network infrastructure. Nonetheless, Freight rail partially implemented the following programmes successfully:

- The Ore corridor replaced five transformers at sub-stations 40 MVA to 60 MVA and the project will be completed in October 2022;
- Manganese line construction of two 3 kv substations is 97% complete, and the substations will be fully completed at the end of August 2022;
- Construction of 3 kv substations to increase capacity to transport 12 mpta of Manganese per annum.
- 77,98 km of track was screened;
- 24 turnouts were replaced;
- 91,42 km of track was replaced;
- 72 819 sleepers were installed; and
- 24 Mast Poles were replaced.

Security

To reduce the surge of security incidents, Freight Rail will continue to implement its security strategy which includes a number of initiatives to secure and protect railway infrastructure and assets. These include:

- Freight Rail has partnered with various law enforcement agencies and is a member of the Essential Infrastructure Task Team (EITT), recently established by the National Commissioner of Police. Freight Rail also chairs the Infrastructure Crime Forum (ICF) which is a forum that enables collaboration with other SOCs and other industries impacted by theft of ferrous and non-ferrous metals. In addition, Freight Rail has established multidisciplinary joint operation initiatives with law enforcement agencies.
- Freight Rail has embarked on customer collaboration initiatives to address identified hotspots where there has been a significant increase in cable theft incidents. Coal customers have provided additional specialised task teams and drone technologies to supplement existing security resources on the North corridor. Since the deployment of these additional resources in October 2021, there has been a reduction in security incidents in the corridor. Customer collaboration initiatives will continue in other identified hotspot areas.
- The implementation of an Outcome Based Performance Contracting Model has commenced. This model allows security service providers to offer end-to-end security solutions based on performance outcomes rather than Freight Rail prescribing how the services should be rendered. In addition, service providers will be required to place emphasis on local community involvement and the use of cutting-edge security technologies.

Efficiency improvements

Freight Rail initiated several efficiency improvement projects including:

- Construction of additional receiving lines at Grindrod Terminal de Carao da Matola (TCM) to increase capacity has commenced;
- Three lines were reactivated in Rossano Gracia;
- The Caminhos de Ferro de Moçambique (CFM) to Maputo Port Development Company (MPDC) rail line connection was constructed to increase terminal capacity. These efforts increased expected performance from five to seven trains per week;
- Chrome & Ferrochrome wagons were standardised to improve offloading turnaround time at the ports;
- Utilisation of the Komatipoort Sugar Mill terminal to consolidate magnetite volumes from road to rail was improved;
- Implemented an increased train length from 75 to 100 wagon sets of Chrome trains from Rustenburg and Thabazimbi to Richards Bay to improve throughput;
- Commenced service of a 75-wagon empty resourcing train from Belfast to Steelpoort;
- Increasing the number of Manganese trains planned to Port Elizabeth from 31 to 35 – this initiative will continue in the new financial year; and
- Developed a plan to reduce manual authorisations in the Bayhead complex which is in implementation and targeted for completion in March 2023.

High-performance culture, productivity, employee health, wellness and employee engagement programmes

- Reorganisation implemented to infuse TFR with different thinking skill set, position it to respond to the segmentation strategy and efficiently respond to customer needs;
- Employees were actively engaged and educated on COVID-19 protocols and preventative measures; and
- A vaccine campaign was launched across Transnet.

Customer collaboration and partnerships

- **Emerging Miner Strategy:** Transnet Freight Rail has made good strides in driving transformation in the mining sector. As at the end of 2021/22, TFR accounts for 30 emerging miners serviced through its various corridors. This translates to 314% growth for emerging miner volumes over the past 10 years, averaging 31,4% growth per annum. The strategy has further enabled 6 emerging miners to grow to major miner status.
- Freight Rail continues to focus efforts on implementing step-changes in the following areas in support of emerging miner growth:
  - Rebasing the allocation ratio between emerging and major miners;
  - Easing ways of doing business with Transnet for emerging miners (contracting, credit management, capacity application processes);
  - Improving access to infrastructure for emerging miners like loading facilities; and
  - Transparency in our processes, e.g. capacity and real estate allocation processes.
- **Road to Rail:** 7 941 truckloads migrated from road to rail.
- **Enabling Small Farmers in collaboration with the Department of Rural Development:** Collaboration between the Department of Rural Development and Land Reform, Makhathini Flats Local Farmers and Transnet Freight Rail to unlock a rail logistics solution for 300 kt sugar cane from the Mkhuze area to the Felixton Mills. An investment of R29 million was allocated, 8 000 jobs in the Umkhanyakude district were created/retained and the livelihood for 2 000 small scale farmers in the area were secured.
- **Rail Sidings and Logistics Solutions:** Freight Rail has successfully launched collaboration projects with private sector for the development of rail intermodal hubs. These include Customer or third-party investment in sidings and related rail services to compliment the overall business solution like shunting, rail line maintenance and terminal operations. The following hubs were enabled through this initiative:
  - Cato Ridge Inland Dry Port Mega Development;
  - Estcourt Intermodal Terminal; and
  - LP Gas in facility in Gauteng.
- Collaboration with City of Durban and Private sector: Freight rail contributed to the decongestion of the Durban Port precinct by reducing the number of heavy road vehicles to the city. The road to rail migration increased export Chrome, Manganese and Grain throughput on the route and improved efficiencies by running 65 wagon trains to maximize network capacity.
- Freight Rail collaborated with customers to develop solutions to improve wagon supply. This entailed exploring alternative wagon ownership, leasing or direct maintenance investment models.

Supply Chain Management (SCM)

Freight Rail undertook major SCM reforms in the past two (2) years, in order to improve procurement efficiencies and governance and compliance. The implemented SCM reforms include in the main, the following:

- Restructuring of the Freight Rail Head Office Supply Chain Management function;
- Strengthening of Supply Chain Management internal controls resulted in a marked improvement in governance and compliance including a significant reduction in irregular expenditure in 2021/22 financial year;
- Establishment of a new Contract Management function in order to improve adherence to contract terms and conditions, achievement of cost savings and reduction of irregular expenditure; and
- Implementation of the new Corridor Supply Chain Management structure improved speed of execution and reduced procurement lead times.

Supply Chain Management continues to play an integral part in enhancing efficiencies in order to deliver increased volumes for our customers through cost-effective procurement.

Branchlines

Transnet continues to offer opportunities to invest, together with the private sector, to ensure the viability of branchlines, and is developing enabling policies and access regimes for branchline operators to operate on the network. These are crucial steps to move freight from road to rail and increase the competitiveness of the rail sector.

The following milestones were achieved:

- Paarl – Franschhoek in the Western Cape is fully operational with a long-term lease Alicedale-Port Alfred long-term concession was awarded;
- Mthatha – Amabele in the Eastern Cape has been awarded a concession to a female empowerment group;
- Wolseley – Prince Alfred in Hamlet in the Ceres Valley, Cape Town is fully operational on a long-term concession for active passenger tourism and containerised freight. The Pretoria Heritage passenger tourism opportunity was awarded to a concessionaire;
- The Cookhouse Blaney line request for proposals was advertised to the open market;
- Investigations and the governance process are progressing well for branchlines in support of timber and sugarcane (Agriculture segment) and are expected to continue into the 2023 financial year; and
- The strategy for Terminals Private Sector Participation (PSP) in the Fruit Industry is under development for conclusion in the new financial year. The PE Narrow Gauge Heritage line, George-Knysna Heritage ine, Nkwalini-Empangeni line, Addo-Kirkwood line, Elgin terminal, Kakamas-Upington line was advertised as a request for proposal.

Project Ukuvuselela Automotive

The catalytic investment by industry in the Tshwane Automotive SEZ, and the proposed development works in Nelson Mandela Bay provided the opportunity to create an additional automotives export rail freight network for the next phase of South Africa's industrial development. The purpose of the SEZ is to create economic growth and transformation within the South African Automotive Sector as the sector aims to produce over 190 000 vehicles a year. The approach is developmental and it will support the process of attracting automotive, related industries, tenants and FDI into the SEZ whilst achieving socio economic empowerment for the surrounding communities. The pre-feasibility study for the project is complete and forms the basis for the next phase of feasibility study for which Transnet is working with respective institutions for funding.

Operational performance

Overview of key performance indicators

Table 1: Financial performance against KPIs

Key performance area and indicator	Unit of measure	2020 Actual	2021 Actual	**2022 Target**	**2022 Actual**	2023 Target
Operational excellence						
Asset utilisation						
General Freight business	Gtkm/Ntkm	1,4	1,4	**1,4**	**1,35**	1,35
Export coal	Gtkm/Ntkm	1,3	1,3	**1,3**	**1,26**	1,26
Export iron ore	Gtkm/Ntkm	1,2	1,2	**1,2**	**1,21**	1,20
Loco-utilisation #						
General Freight business	GTK'000/loco/month	4 177	3 702	**3 041**	**3 446**	2 562
Export coal	GTK'000/loco/month	18 002	17 052	**17 594**	**14 161**	19 252
Export iron ore	GTK'000/loco/month	46 686	42 209	**43 582**	**42 735**	47 142
Cycle time						
Export coal	hours	62,4	69	**64**	**70,83**	64
Iron ore	hours	95	110	**88**	**90,4**	88
Export manganese	hours	153,7	205	**127**	**187,9**	127
Wagon turnaround time						
General Freight business	days	9,8	11	**9,78**	**13,79**	9,91
Density						
General freight	GTK/Routekm	4,71	3,5	**4,6**	**3,22**	4,04
ContainerCor	GTK/Routekm	7,97	5,4	**6,8**	**4,40**	5,44
Capecor	GTK/Routekm	5,09	3,7	**5,1**	**3,64**	4,51
Southcor	GTK/Routekm	6,18	4,8	**6,1**	**4,90**	6,12
Service delivery						
On-time departure (average deviation from scheduled times)						
General Freight business	minutes	(13)	17	**120**	**12,61**	108
Export coal	minutes	(44)	(47)	**32**	**(43,06)**	29
Export iron ore	minutes	(40)	(40)	**45**	**19,73**	41
On-time arrivals (average deviation from scheduled times)						
General Freight business	minutes	172	243	**134**	**336**	121
Export coal	minutes	71	127	**65**	**327**	58
Export iron ore	minutes	195	24	**150**	**42**	135

Table 1: Financial performance against KPIs (continued)

Key performance area and indicator	Unit of measure	2020 Actual	2021 Actual	**2022 Target**	**2022 Actual**	2023 Target
Market segment competitiveness						
Volume and revenue growth						
Commodity classification						
General Freight business	mt	81,0	62,7	**76,6**	**60,1**	67,9
Export coal	mt	72,5	66,3	**73,2**	**58,1**	74,2
Export iron ore	mt	58,9	52,2	**59,0**	**54,5**	60,0
Total volumes	mt	212,4	181,1	**208,8**	**172,7**	202,2
Tariffs						
Year-on-year weighted average R/ton change – General Freight business	%	5,12	3,77	**4,01**	**(1,27)**	10,72
Human capital						
Employment equity	%	89,8	90,6	**90,0**	**92,8**	90
Training spend	% of personnel cost	2,8	2,1	**1,4**	**0,9**	2,5
Employee turnover	%	3,8	3,4	**5,0**	**7,8**	5
Employee headcount	permanent	26 053	25 616	**26 995**	**23 465**	26 995
Risk, safety and health						
Cost of risk	% of revenue	6,8	7	**6,2**	**9,9**	6,2
Disabling injury frequency rate	Rate (done)	0,81	0,77	**0,88**	**0,74**	0,80
Number of safety incidents	number	278	217	**191**	**227**	181
Number of derailments Mainline	number	88	70	**62**	**78**	62
Number of derailments Shunting	number	147	122	**107**	**121**	97

Financial performance review

Table 2: Financial performance review

Salient features		Year ended 31 March 2022 R million	Year ended 31 March 2021 R million	% change
Revenue		**37 812**	39 448	(4,1)
General freight		**18 429**	19 010	(3,1)
Export coal		**10 481**	12 083	(13,3)
Export iron ore		**7 420**	6 806	9,0
Other		**1 481**	1 549	(4,4)
Operating expenses		**(26 514)**	(25 145)	5,4
Energy costs		**(5 876)**	(4 839)	21,4
Maintenance		**(2 692)**	(2 435)	10,6
Materials		**(228)**	(368)	(38,0)
Personnel costs		**(13 651)**	(13 086)	4,3
Other costs		**(4 067)**	(4 417)	(7,9)
Profit from operations before depreciation, derecognition, amortisation and items listed below (EBITDA)		**11 298**	14 303	(21,0)
Depreciation, derecognition and amortisation		**(8 821)**	(8 021)	10,0
Profit from operations before items listed below		**2 476**	6 282	(60,6)
Impairments and fair value adjustments		**(828)**	(1 756)	(52,9)
Net finance costs		**(4 464)**	(4 618)	(3,3)
Profit before taxation		**(2 815)**	(92)	(>100)
Total assets (excluding CWIP)	R million	**150 834**	141 544	6,6
Profitability measures				
EBITDA margin[1]	%	**29,9**	36,3	(6,4)
Operating margin[2]	%	**6,5**	15,9	(9,4)
Return on invested capital[3]	%	**1,0**	2,7	(1,7)
Asset turnover (excluding CWIP)[4]	times	**0,26**	0,27	(0,1)
Capital investments[5]	R million	**10 037**	11 926	(15,9)

[1] *EBITDA expressed as a percentage of revenue.*

[2] *Profit from operations before impairment of assets, fair value adjustments, net finance costs and taxation expressed as a percentage of revenue.*

[3] *Profit from operations before impairment of assets, fair value adjustments, net finance costs and taxation expressed as a percentage of average total assets, excluding capital work in progress.*

[4] *Revenue divided by average total assets, excluding capital work in progress.*

[5] *Actual capital expenditure (replacement plus expansion), excluding borrowing costs and including capitalised finance leases.*

Performance commentary

Financial sustainability

Revenue

Revenue declined by 4,1% from R39,5 billion to R37,8 billion. The average Rand/ton increased from R208,72 in the prior year to R211,35 in the current year. The average increase in R/ton at 1,3% was well below the average CPI of 5,2% over the reporting period.

Operating expenses

Even with efforts to contain costs through cost savings measures implemented during the year under review, operating expenses increased by 5,4% to R26,5 billion (2021: R25,2 billion). Personnel costs (excluding training) increased by 4,9% to R13,6 billion (2021: R13,0 billion), mainly due to increase in bargaining unit salaries in line with the wage agreement, as well as voluntary severance packages granted. Fuel and electricity costs increased 21% and 22% respectively to R2,1billion (2021: R1,8 billion) and R3,7 billion (2021: R3,1 billion) mainly due to higher prices paid for diesel and electricity compared to the prior year. Other operating expenses recorded 8,4% reduction to R4,0 billion (2021: R4,4 billion) despite increase in security costs linked to increase in incidents rates.

EBITDA and operating margins

Driven by lower revenue and increased costs for the year under review, EBITDA margins declined to 29,9% (2021: 36,3%).

Return on invested capital

Return on invested capital declined to 1,6% (2021: 4,0%). This is mainly because of a decrease in operating Profit to R2 476 million (2021: R6 282 million) attributable to lower volumes and revenue performance for the period under review.

Gearing

Financial gearing improved to 59,5% (2021: 62,5%) mainly due to decrease in borrowings to R73 603 million (2021: R75 831 million).

Asset turnover (excluding CWIP)

The Asset turnover rate for the period under review declined to 0,26 times (2021: 0,27 times) in line with the decrease in revenue.

Net debt to EBITDA

Net debt to EBITDA increased to 6,5 times (2021: 5,3 times) as a result of the decrease in EBITDA to R11,297 million (2021: R14,303 million).

Revenue per employee

Revenue per employee was R1 467 million compared to 2021: R1 315 million per employee (1,2% improvement year-on-year).

Capacity creation

Total investment for the year amounted to R10 037 million (2021: R11 822 million) of which R7 499 million (2021: R8 655 million) was spent on capitalised maintenance (COPEX) as depicted in the table below:

Table 3: Freight Rail investment summary (COPEX)

Category	Actual 2022 R million	**Actual 2021 R million**	Deviation
Infrastructure	2 932	**3 975**	(1 052)
Locomotives	1 760	**1 834**	(74)
Wagons	2 816	**2 846**	(30)
Total	7 499	**8 655**	(1 156)

Looking ahead

In response to the challenging and constrained business environment, Transnet continued with the implemented zero-based budgeting and driver-based budgeting methods for 2022/23 financial period.

At a Transnet level, the 2022/23 financial plan aims to:

- Maintain financial stability guided by approved financial parameters (gearing, cash interest cover, debt/EBITDA and return on invested capital);
- Retain an investment grade credit rating, at least on a standalone basis, to enable cost-effective funding;
- Reinvest to maintain, grow and diversify operations;
- Optimise the cost of capital, including external debt; and
- Optimise utilisation of working capital.

Operational management

Freight Rail operations management is underpinned by the Corridor Operating Model. At the centre of the corridors' operations is the Operations Command Centre, which integrates tactical objectives and plans to ensure coordinated rolling stock, maintenance slots, human resources, and capital allocation and deployment across all operating corridors of the system.

Performance commentary

Freight Rail volume performance was lower than the prior year, reflecting a decline of 5% to 172,7 mt (2021: 181,1 mt).

General Freight Business

General Freight Business volumes declined by of 4,2% to 60,1 mt railed (2021: 62,7 mt), and 21,6% lower against a target of 76,6 mt because of the prevailing weak economic climate, as well as various operational issues including network, crew and resource challenges. Some Business Sectors such as Manganese performed well and recorded an increase of 10,8% to 14,5 mt (2021: 13,1 mt); Cement and Lime volumes increased by 12,6% to 3,1 mt (2021: 2,8 mt); Iron & Steel increased by 9,1% to 5,2 mt (2021: 4,8 mt).

This was offset by a decline in performance in other sectors such as domestic coal that declined by 15,2% to 7,1 mt (2021: 8,3 mt); mineral mining declined by 4,0% to 11,7 mt (2021: 12,2 mt) and chrome declined by 18,2% to 4,8 mt (2021: 5,9 mt), mainly due to product unavailability, plant breakdowns, extreme weather conditions, community unrest blocking train operations, and the impact of infrastructure related crimes on the Freight Rail network.

The container and automotive business sector declined by 13,0% to 5,4 mt (2021: 6,2 mt) primarily due to the COVID-19 pandemic which continued to affect volumes during the financial year as well as the closure of private sidings in the Gauteng area due to the pandemic. Furthermore, a shortage of empty containers also contributed to the decline in container volumes. The Toyota automotive shuttle service between Isipingo and the Durban Car Terminal increased by 46% in 2022 when compared to the previous year (2021) when the the automotive industry was severely impacted by the Covid 19 pandemic.

The General Freight average wagon turnaround time declined by 25,4% to 13,8 days (2021: 11,0 days).

Export coal line

Freight Rail railed 58,1 mt of Export Line Coal (2021: 66,3 mt), a decline of 12,4% against the prior year. The performance was impacted mainly by loco availability as well as infrastructure related crimes on the Freight Rail network.

Export iron ore line

Export iron ore increased by 4,5% to 54,5 mt (2021: 52,2 mt). The main reason for this was strong customer demand and improved operational efficiencies.

Operations excellence

To effectively administer the Freight Rail sub-systems and improve operational excellence, different key performance indicators (KPIs) were tracked and monitored during the year under review. However, performance of most operational efficiency KPIs was unfavorable when compared to the prior year and as well as against the budget for the year.

Locomotive utilisation

The unfavourable general freight, export coal and export iron locomotive utilisation performance were mainly due to concurrent utilisation of new and less efficient old locomotives and non-delivery of budgeted volumes.

The 1064 contractual dispute has impacted the deployment of 22E and 45E class locomotives and the availability of spares for locomotive maintenance. The project is on hold and local suppliers will be sourced. This has resulted in aged locomotives remaining in service, affecting reliability and availability, thus reflecting an overall underutilisation of the asset base.

Cycle times and wagon turnaround times

Export RBCT Coal

The cycle time increased by 2,6% from 69 hours in 2021 to 70,83 hours in 2022 against a target of 64 hours. The high cycle time and the non-achievement of the target was largely due to:

- locomotive reliability and undersupply;
- unavailability of spare parts and components due to the Department of Trade, Industry and Competition (DTIC) localisation requirements and a lack of original equipment manufacturers (OEM) support as a result of 1 064 contractual disputes;
- Security;
- Infrastructure failures and disruptions;
- Community related unrest;
- Force majeure.

Export iron ore

The wagon turn around time (TAT) improved by 18% from a high of 110 hours in 2020/21 to 90,4 hours against a target of 88 hours in 2022. This improvement is attributed to the continuous removal of speed restrictions as well as the prior year having mine closure for lockdown under COVID-19 resulting in staging of wagons during the period. However, other factors that contributed to above-target performance were derailments, the locust plague, and washaways from heavy rains.

Export Manganese

The cycle time of 187.88 hours in 2022 (2021: 205 hours) reflected an improvement when compared to the prior year. Cycle time was impacted by the closure of the mines for lockdown under COVID-19, severe wash away from heavy rains in the Mmamathwane area and Addo areas and the closure of the Fieldsview to Kimberley line due to high water levels on the railway line in Kamfersdam, as well as the clamped points and temporary speed restrictions between Rosmead and Port Elizabeth.

General Freight

The wagon turnaround time declined from 11 days in 2020/21 to 13,79 days against a target of 9,78 days in 2021/22. This is as a result of the speed restrictions, the clamping of points, community unrest and increased theft incidences. This decline causes a higher demand for more diesel locomotives on electrified lines.

Density

Density is a function of volumes transported over the rail route network. The reduction in density was as a result of the aforementioned constraints.

- Export iron ore volumes moved over the network were higher than prior year (2021: 52,2 mt vs 2022: 54,6 mt).
- General freight volumes moved over the network were lower than prior year (2021: 62,7 mt vs 2022: 60,2 mt).
- Export RBCT Coal volumes moved over the network were lower than prior year (2021: 66.3 mt vs 2022: 58.1 mt).

On-time Departures (OTD) and Arrivals (OTA)

Freight Rail continuously analyses resourcing variables and deviation reasons to identify ways to improve train departure performance and is committed to adhering to the Scheduled Railway operations philosophy This is evident in the improved OTD and OTA performance.

Looking ahead

Freight Rail will implement the following initiatives to improve operations:

Wagons, Locomotives and Crew

- Alternative wagon ownership models to improve funding for wagon maintenance and improve availability;
- Realign rolling stock deployment to improve the financial sustainability:
- Finalise technical requirements to bring into service 22E locomotives fitted with Electronic Control Pneumatic Braking (ECP) to mitigate the undersupply of locomotives;
- Freight rail will continue with multi-skilling and optimising crews across corridors to increase the capacity and recover from operational deviations and disruptions; and
- Diesel locomotives will be deployed on rail sections prone to OHTE theft and vandalism where possible.

Yards

- Repair the Durban complex signalling system to reduce manual authorisations.
- Issue Request for Proposals or Information from private sector on models for collaboration to improve inland terminal operations.

Infrastructure

- Prioritise infrastructure funding to ensure adherence to network renewal cycles and maintenance of safety standards.

Train Service

- The Cape corridor is in the process of developing solutions to expand all rail capacity on the Hotazel to Gqeberha export manganese line to satisfy the demand from industry to export more manganese;
- The North corridor will optimise the operating methodology in the Rustenburg and Thabazimbi areas by collaborating with chrome customers in the running of hauler services to achieve mutual benefits;
- Implement integrated tactical planning for the port of Richards Bay by implementing the Richards Bay Joint Operation Centre:
  - Integration of the planning of train arrivals and shunting to vessel plan;
  - Address the availability and reliability of offloading and handling equipment;
- Transnet will conduct a study of the Container corridor and investigate alternative operating models to optimise performance and create opportunities for collaboration with private sector;
- The OCC will acquire an upgraded Integrated Train Planning system to:
  - Enable the prioritisation and ranking of demand based on cost and profitability;
  - Produce an optimised production plan for the next production period;
  - Match resource capacities with validated demand based on contracted service specifications; and
  - Enable optimal distribution of capacity on the rail network.

Sustainable development outcomes

Human capital (employment and transformation)

- Freight Rail ended the 2021/22 financial year with a permanent headcount of 23 465 employees.
- Freight Rail sustained employment equity performance with black employees representing 92,80% (target: 90%) of the total employee base thus improving on the previous year's performance (2021: 90,6%). Whereas the total female employees represented 31.74% of the workforce, the percentage female employees at Executive Committee level improved to 50% and people with disabilities represented 2,77% of the total employee base.
- Training spend in 2021/22 at 0,97% of personnel cost was lower than the prior year (2021: 2,1%) and below the target of 1,43% primarily due to restrictions imposed by the pandemic.

Skills development

- Freight Rail continued to deliver learning solutions to enable performance, ensure safety adherence and support the operationalisation of the corridor model by building competence through skilling, re-skilling and multiskilling of operational crews, rail infrastructure maintenance bargaining unit employees, Engineers, Technicians and Artisans. Freight Rail conducted 35 558 training interventions were delivered against a target of 25 069 for 2022 financial year.
- Leadership development is an ongoing future orientated strategy, and in line with business needs there has been an implementation of focused training interventions such as the Rail Business Performance Programme tailored to specifically address performance gaps, improve leadership capabilities, and ensure that employees are able to respond to current and future business needs within the various Corridors. A total of 335 managers (Junior-Executive) completed the programme. Employees attended group coaching interventions with the aim of ensuring strategic performance alignment.
- A total number of 248 employees will be retiring in the next 5 years, and 155 of those are classified as critical and safety critical skills. The formalised mentoring programme will facilitate the transferring of skills and ensure that a pool of competent and experienced employees is readily available to ensure business continuity.
- Freight Rail currently has 860 active bursars with the primary purpose of improving the levels of knowledge and competency as well as the numbers of skilled and qualified people within the workforce, ultimately increasing productivity and reaching business goals.

Skills, competencies and capability

- Central corridor implemented driver multiskilling to improve driver utilisation.
- Training and contracting of Train Drivers was implemented as part of the Branch line strategy.
- Freight Rail continues to implement the Technicians in Training (TIT) and Engineering in Training (EIT) programme successfully implemented as a feeder to the country's much needed engineering skills base.

Table 5: Number of engineers and technicians on the EEP

Training area	2021 Actual	2022 Target	**2022 Actual**
Technicians in training (P1&P2 Learners)	179	200	**203**
Engineers in training (Engineering Bursars)	60	50	**42**
Young professionals in training	156	145	**131**

Table 6: Youth employment and development strategy

Employment/ development	2021 Actual	2022 Target	**2022 Actual**
Youth employed as % of total employees	28%	N/A	**32%**
Youth developed as % of all employees trained	37%	N/A	**14%**

Risk, safety and health

Cost of risk

The 2021/22 Cost of Risk as a percentage (%) of Turnover was 9,9% against the target of 6,2% (a 60% deviation from target). This translates into an unfavourable 29% year on year increase from the 7% achieved in 2020/21.

The unprecedented increase in Cost of Risk was primarily due to an 88% increase in the Cost of Incident losses (from R1,1 billion to R1,98 billion), a 24% increase in insurance premiums (from R220 million to R272 million) and reduced revenue generated.

Lost time injuries frequency rate (LTIFR)

Freight Rail ended the financial year with an LTIFR of 0,74. The performance was within the tolerance limit of 0,88 and a 4% improvement from 0,77 achieved in 2020/21. This is better than the Global benchmark of 1.

Balanced Score Card (BSC) safety occurrences

The overall number of BSC rail occurrences i.e. running line derailments; shunt derailments; train on train collisions and Signals Passed at Danger were 227 which is an increase of 5% compared to 217 in 2020/21. The overall BSC Performance exceeded the tolerance limit of 12% year on year improvement, equivalent to 191 incidents.

Mainline derailments

The number of mainline derailments increased by 11% from 70 in 2021 to 78 in 2021/22. The performance exceeded the tolerance limit of 62.

Shunting derailments

Though the number of shunting derailments decreased by 1% from 122 in 2020/21 to 121 in 2021/22, the performance exceeded the tolerance limit of 107.

Train on train collisions

The number of train-on-train collisions increased by 200% from 2 in 2020/21 to 6 in 2021/22. The performance exceeded the tolerance limit of 2.

Signal passed at danger (SPAD's)

The number of SPADs decreased by 4% from 23 in 2020/21 to 22 in 2021/22. The performance exceeds the tolerance limit of 20.

Key risks and mitigating activities

Table 7: Freight Rail's Top Strategic Risks

	Risk description	Key mitigation activities
1.	**Financial sustainability risk** Inability to remain financially self-sustainable and restore stakeholder confidence	• Developed operational plans for corridors to optimise commodity mix and high yield flows to improve volume tempo and increase revenue generation. • Focused debtors' management and recovery from top 20 debtors. • Determined initiative on collection of PRASA debt. • Obtaining of guarantees from customers. • Continuous cash forecasting, and financial scenario analysis to determine effective financial response. • Implemented cost-optimisation and cash preservation exercise to manage costs within approved budget and affordability levels.
2.	**Funding risk** Inability to generate sufficient funding to sustain and expand capital programme requirements (New: Split from financial sustainability risk)	• Reallocated/reduced capital in line with affordability and prioritisation of key Projects/ Operational activities to enable Volumes. • Continuously re-evaluated available free cash flow to determine capital affordability. • Identified and continuous implementation of programmes for alternative funding models (Private Sector Participation, Sale of wagons, investigate security levy options.
3.	**Rail network infrastructure risk** Inability to provide a reliable and safe infrastructure for the passage of trains, threatening Freight Rail's ability to achieve volumes and threatening its financial sustainability	• Continuous implementation of the seven-year COPEX and CAPEX programme recommended by Deutsche Bahn to address the maintenance backlog and sustain the network to "A" maintenance standard. • Continued designing and implementation of extreme weather drainage system for extreme weather conditions (culverts, embankment, and formation stabilisation). • Streamlining the Procurement Processes for the faster turnaround time for the acquisition of material and services to enable Infrastructure activities.
4.	**Security risk** Increased security incidents, leading to Freight Rail's inability to secure its assets and deliver a reliable service to customers	• Implementation of effective Security Strategy/Security improvement Plan/Security Technology Deployment, exploration of alternative funding models is underway. • Continued Installation of vandal proof infrastructure (Tiger Wire, Concrete Vandal Proof enclosures). • Implementation of the long-term based contracting, to eliminate the month-month security services from third parties.
5.	**Rolling stock risk** Unavailability and unreliability of locomotives (including the impact of 1 064 locomotive renegotiations), leading to inability to achieve volume targets	• Implementation of Master Services Agreement inclusive of a long-term parts agreement (This refers to the MSA with respect to OEM's providing parts, training, and supervision to TE to maintain the 1 064 locomotives). • Continuous process of run to failure, cannibalization, and reuse of components to keep balance of fleet in operations and eventually retire fleets. • Implementation of scraping/disposal project of retired locomotives. • Continued replacement of all old design Lucchini Wheels on the Ore and Coal heavy haul lines. • Conducted an organisational skill needs analysis to determine competencies that will sustain current and future business requirement.
6.	**Procurement Risk** Procurement processes and policies that impact on the effective delivery of services to the business and non-compliance	• Rollout of Group wide Procurement Transformation initiative. • Implementation of the revised PPM. • Automation of the Procurement Process, to eliminate influence within the Process, with the advantage of recorded data/traceable events.
7.	**PRASA risk** Unavailability and unreliability of the PRASA network, leading to the reduction in rail capacity, impacting on Freight Rail's market share	• Exploration of opportunities for collaboration and alignment of plans on Rail Infrastructure technical railway systems, rail infrastructure and rolling stock maintenance. • Commencement of resolution legacy issues, related to Transfer of Assets and properties to PRASA or to Transnet and to rectify accordingly, as well as Debt related matters between PRASA and Freight Rail.
8.	**Contract Management risk** Poor contract management leading to irregular expenditure	• Rollout of effective contract management regime and training thereof. • Commencement of implementation of contract lifecycle management processes and monitoring of adherence thereof. • Implement a document and data management system for procurement and revenue contracts.
9.	**ICT Risk** Inadequate Information & Communication Technology Infrastructure (including Cyber Security Controls), to enable Business to achieve its Objectives	• Rolling out of Freight Rail Digital Strategy. • Continuous implementation of Enterprise architecture with Governance and appoint specific roles and responsibilities within the organization. • Researched emerging Technologies (4IR) in progress, to improve current ICT Services to the Business. • Internal Audits and assurance to be conducted for the control environment around Cyber Security, POPIA compliance.

Opportunities

Freight Rail continues to be committed to rail sector reform to improve the efficiency, competitiveness and sustainability of the sector.

In line with the "Fix" and "Optimise" phases of the strategy journey, the business continues to pursue opportunities to position the business for growth and drive key initiatives that will:

- Leverage PSPs or strategic partnerships to new market development and solutions;
- Collaborate with customers and/or industry to implement supply chain solutions; and
- Strengthen existing operational relationships with neighbouring countries to increase volume throughput and promote Regional Integration.

Freight Rail Sustainability Report 2022

During the 2021/22 financial year, Freight Rail achieved the following sustainability objectives:

Water use/Consumption in Kilolitres (kl)

- Freight Rail's operational areas receives the bulk of its water supply from municipalities. In the 2021/22 financial year a total of 9 426 727 kl of water was consumed in the operational areas as compared to 16 936 921 kl the previous year. This represents a 44% reduction in water use.
- Despite the implementation of water saving and management initiatives, this reduction may also be, in part, attributed to the low operational activities due to COVID-19 lockdowns and personnel working from home during the 2020/21 financial year.
- Additionally, the three [3] year programme to implement water saving initiatives, i.e., installation of Water Demand Management (WDM) technology and active water wastage repair at various Freight Rail depots has helped to reduce water consumption during the 2021/22.
- The implementation of the WDM project resulted in water savings amounting to 3 553 Mega litres (Ml) to date. The monetary value of water and sanitation savings achieved to date is R155 million. The WDM contract expired in February 2022. A process to source a Phase 2 WDM contract for 2022/23 financial year that includes both Transnet Property (TP) and Freight Rail properties, is currently underway.

Eradication of Alien and Invasive Plant Species (Control Plan)

- Freight Rail eradicated approximately 440 hectares (ha) of alien and invasive plant species in 2021/22 out of 5 171,56 ha determined in terms of its 5-year Control Plan. The target for the control of invasive plants species for 2023 is 1 292,89 ha.

- **Electrical Traction Consumption** – The total electrical traction consumption for the 2021/22 financial year decreased by 0,37% compared to the previous year whilst volumes increased by 19,6%, resulting in a 20,0% efficiency increase against the previous year. Note, gross ton per kilometre (GTK) is currently calculated in terms of tons moved. The cost of Traction electricity increased by 16% against the previous year whilst the average price increased by 16,8% against the previous year.
- **Traction Diesel Fuel** – The total traction diesel litres for the 2021/22 financial year decreased by 1,8%, whilst diesel volumes increased by 18,2%, resulting in a 20,4% fuel efficiency increase against the previous year. The traction diesel fuel cost for the 2021/22 financial year increased by 21,2% against the previous year, whilst the average price increased by 23,5% against the previous year.
- **Real Estate Management** – Freight Rail Real Estate electricity consumption for the 2021/22 financial year decreased by 11,2% against the previous financial year, which is 10,3% above the target. The cost of electricity decreased by 6,3%, whilst the average price increased by 5,6% against the previous year.
- **Carbon emissions** – Freight Rail carbon emissions for 2021/22 are 2 535 228 tonCO_2e as compared to 2 566 844 tonCO_2e in the previous year. This indicates that emissions were 31 616 tonCO_2e lesser than the previous financial year and translates to a 1,23% reduction in CO_2e emissions.
- **Freight Rail Energy Efficiency/Saving Performance** – Freight Rail has achieved its energy targets for 2021/22 against energy use performance for 2020/21 as illustrated in the Table below.

Energy use and Carbon emissions

	2020/21 April 2021 Year-on-Year targets			2021/22 Performances		
	Measurement	Target on PY	2021 Target	2022 Performance	Efficiency Gain on PY	Target Achieved (Yes/No)
Traction Electrical	gtk/kWh	0,3%	71,2	85,4	20,0%	Yes
Traction Diesel	gtk/Litre	0,5%	236,0	284,2	20,4%	Yes
Real Estate Management	kWh	1,0%	158 971 481	141 153 747	11,2%	Yes

Abbreviations and acronyms

COPEX	Capitalised Operational Expenditure
CWIP	Capital work in progress
DoT	Department of Transport
DPE	Department of Public Enterprises
EBITDA	Earnings before interest, tax, depreciation and amortisation
Gtkm	Gross tonne kilometre
KPI	Key performance indicator
mt	Million tonnes
Ntkm	Net tonne kilometre
OD	Operating Division
opex	Operating expenditure
Prasa	Passenger Rail Agency of South Africa
SADC	Southern African Development Community
TEU	Twenty-foot equivalent unit